



STANDARD STRAIGHT BAR

| BAR<br>SIZE | * LOCATION CATEGORY |                      |        |
|-------------|---------------------|----------------------|--------|
|             | A                   | B                    | C      |
| #4          | 1'-9"               | 1'-3"                | 1'-0"  |
| #5          | 2'-2"               | 1'-6"                | 1'-3"  |
| #6          | 2'-7"               | 1'-10"               | 1'-6"  |
| #7          | 3'-0"               | Does<br>Not<br>Exist | 1'-9"  |
| #8          | 3'-11"              |                      | 2'-3"  |
| #9          | 5'-0"               |                      | 2'-10" |
| #10         | 6'-4"               |                      | 3'-8"  |
| #11         | 7'-9"               |                      | 4'-5"  |

\* LOCATION CATEGORY:

A- Bars in horizontal layers in top of pour with 12" or more of concrete below them such as in: footings, pier caps, etc.

B- All bars not in Category A spaced less than 6" apart.

C- All bars not in Category A spaced 6" or more apart.

Note:

CASE NO.2 - For bars coated with epoxy not in Case No.1.

1. When development length is not specified on the Plans, the above dimensions shall be used.
2. These development lengths do not apply when bar is in lightweight concrete or any other strength of concrete.
3. These development lengths only apply where the General Notes indicate "Reinforcing Steel Design,  $f_y = 60$  ksi."

| APPROVAL                      |                      |
|-------------------------------|----------------------|
| <i>L.S. Friedman</i> DIRECTOR | OFFICE OF STRUCTURES |
| DATE: 2/2/90                  |                      |
| REVISIONS                     |                      |
| SHA                           | FHWA                 |
| 11-23-93                      | .                    |
| 1-22-01                       | .                    |
| 9-20-05                       | .                    |
| 11-26-07                      | .                    |

FHWA APPROVAL  
DATE:

| STATE OF MARYLAND<br>DEPARTMENT OF TRANSPORTATION<br>STATE HIGHWAY ADMINISTRATION<br>OFFICE OF STRUCTURES                                   |                            |
|---|----------------------------|
| DEVELOPMENT LENGTH DIMENSIONS FOR<br>GRADE 60 REINFORCING STEEL<br>IN MIX NO.6 (4500 P.S.I.) CONCRETE<br>EPOXY COATED REINFORCING CASE NO.2 |                            |
| STANDARD NO. M(6.16)-90-216(L)  | SHEET <u>3</u> OF <u>3</u> |



MISCELLANEOUS